

TABLE 2.—Total hourly amounts of precipitation, May to October, for the 19 years 1905-1923, inclusive, at Springfield, Ill.

	Hour beginning at—																							
	A. M.											P. M.												
	Mid- night	1	2	3	4	5	6	7	8	9	10	11	Noon	1	2	3	4	5	6	7	8	9	10	11
May.....	4.64	4.04	5.63	4.77	4.54	3.68	3.86	3.66	2.20	2.04	2.28	1.47	3.05	2.03	1.79	1.83	2.32	2.00	3.15	4.27	2.77	2.87	3.78	4.67
June.....	3.81	3.13	2.84	2.49	3.43	2.47	4.19	3.96	2.23	.95	1.87	2.00	2.44	2.95	1.44	2.75	3.53	5.66	2.26	4.62	1.49	2.36	1.70	3.87
July.....	3.96	1.85	.85	1.94	2.30	1.52	2.33	1.93	1.57	1.47	1.96	1.95	3.00	1.64	3.98	2.36	1.67	4.47	1.96	2.47	2.04	2.65	1.62	3.79
August.....	2.90	3.57	2.60	3.55	4.29	3.68	2.74	3.04	2.88	3.02	2.41	2.32	.69	1.11	1.39	3.62	2.14	4.21	5.37	2.42	2.13	3.16	1.90	2.92
September.....	3.81	3.81	3.97	3.07	2.89	3.97	2.87	2.74	2.26	3.29	4.18	2.70	2.33	2.98	2.79	1.40	1.12	1.27	2.52	.99	1.30	2.41	2.75	3.02
October.....	2.43	2.05	2.07	1.86	2.15	2.04	1.86	2.15	1.62	1.75	1.59	1.68	1.41	1.18	.86	1.16	1.32	1.78	1.68	2.16	1.21	1.98	3.68	2.29
Mean.....	3.59	3.08	2.99	2.96	3.27	2.89	2.98	2.91	2.13	2.09	2.38	2.02	2.15	1.98	2.04	2.02	2.00	3.23	2.82	2.82	1.82	2.57	2.56	3.43

TABLE 3.—Percentage of monthly precipitation occurring during 6-hour periods, May to October, inclusive, Springfield, Ill.

Month	Midnight to 6 a. m.	6 a. m. to noon	Noon to 6 p. m.	6 p. m. to midnight	Month	Midnight to 6 a. m.	6 a. m. to noon	Noon to 6 p. m.	6 p. m. to midnight
May.....	Per cent 34	Per cent 19	Per cent 17	Per cent 30	September.....	Per cent 32	Per cent 27	Per cent 19	Per cent 22
June.....	27	20	27	26	October.....	28	23	18	31
July.....	19	22	29	30	Mean.....	29	22	22	27
August.....	30	21	26	23					

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## HOURLY RAINFALL AT LOS ANGELES, CALIF.

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During the past year or two there has been considerable discussion, in connection with the subject of rain insurance, as to the periods of the day in which the greatest and least frequency of rainfall occurs. It has therefore occurred to the writer that it might be of interest to obtain definite information on the subject by making an analysis of the records of hourly rainfall at Los Angeles. At the same time it appeared to be worth while to determine the hours in which the greatest and least amounts of rain fell. The results of this investigation are set forth in the following note.

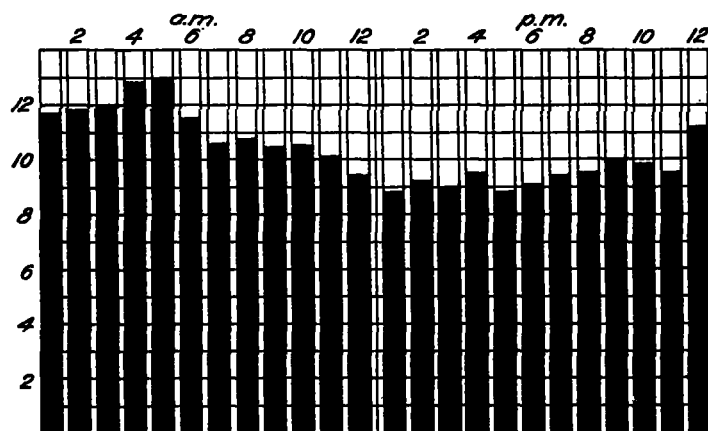


FIG. 1.—The annual average frequency of precipitation (0.01 of an inch or more) for each hour of the day at Los Angeles, Calif., 1905 to 1913, inclusive

It appeared to be the general belief of those with whom the subject was discussed that rain at Los Angeles occurred most frequently and in greatest amount during the night. If we designate 6 p. m. to 6 a. m. as night and 6 a. m. to 6 p. m. as day, this belief is substantiated by the data which form the basis of Figures 1 and 2. There is an increase in frequency during the night of 14 per cent over that of the day, and an increase in total amount during the night of 23 per cent above that of the day. It is interesting to note that not only are the total hourly amounts of rain for the early morning hours greater, as would be expected with a greater frequency, but the increase in amount greatly exceeds the increase in frequency. The greatest frequency is 47 per cent more

than the least frequency while the greatest amount of rain is 91 per cent more than the least amount.

In studying Figure 1, as a possible aid in forecasting, it is found that the forecast period 5 p. m. to 5 a. m. shows greater frequency of rainfall than the period 5 a. m. to 5 p. m., but probably this difference is not sufficient to be of any material help in forecasting.

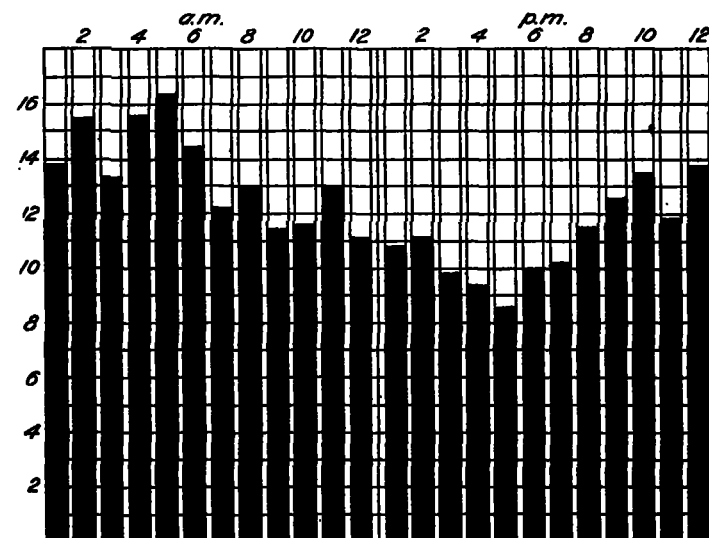


FIG. 2.—The total rainfall in inches for each hour of the day at Los Angeles, Calif., 1905 to 1913, inclusive

The results obtained by tabulating these data show that the greatest frequency of rainfall at Los Angeles is between 4 and 5 a. m. This is also true of the greatest amount. The least frequency is from 12 noon to 1 p. m. and also 4 to 5 p. m., and the least amount occurs between 4 and 5 p. m.

In considering these figures it must be remembered that this is a region of very light rainfall, the average annual amount being only 15.37 inches, so that a single excessive rain occurring in a given hour might bring the total of that hour considerably higher than that of the preceding and following hours. It would probably require a study of a period covering a great many years to smooth out the irregularities entirely.